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10/550,967	09/26/2005	Heinrich Franz Bartosik	AT 030013	6112
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EXAMINER PULLIAS, JESSE SCOTT				
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

# Office Action Summary

**Application No.**

10/550,967

**Applicant(s)**

BARTOSIK ET AL.

**Examiner**

JESSE S. PULLIAS

**Art Unit**

2626

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 29 May 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-946)
- 3) ☐ Information Disclosure Statement(s) (PTO/SF/ICE)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

### **DETAILED ACTION**

1. This office action is in response to correspondence filed 05/29/2008 regarding application 10/550967. Claims 1-16 have been amended and are pending in the application.

### ***Response to Arguments***

2. The examiner assumes applicant intended "individual word parts" in line 5, claim 2, to recite "at least individual word parts", since the remarks on page 6 state that this limitation is recited by claim 1 and comment, "Independent claims 2 and 7 recites similar limitations". While claim 7 does not specifically recite "at least individual word parts", the examiner assumes applicant was referring to "at least word parts" as the similar limitation recited. For the purposes of the following response to arguments and consideration of the claims, the examiner has interpreted "individual word parts" in line 5 of claim 2 to recite "at least individual word parts."

3. The examiner has considered the replacement sheet filed 05/29/2008 in response to the objection to the drawing, but it is not sufficient to overcome the objection. While textual labels were added to the components as requested by the examiner, they are not legible and so the objection is maintained. The examiner suggests replacing the labels with typed labels that are large enough to read.

4. The amendment of claim 5 overcomes the objection to minor informalities and so the objection is withdrawn.

5. The amendments of claims 1, 3, 5, 6-9, 12, and 16 overcome the rejection under 35 U.S.C. 112 second paragraph, and so the rejection is withdrawn.

6. Applicant's arguments, see pages 6-8, regarding the 35 U.S.C. 102(b) rejection of claims 1-8, 13, and 14 and the 35 U.S.C. 103(a) rejection of claims 9-12, 15, and 16 have been fully considered but they are not persuasive.

7. In response to applicant's arguments, see remarks pages 6-7, that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., Mishelevich on page 15, lines 21-28 teaches only the user of a word or phrase in its application alternatives and not word parts, see remarks page 7) are not recited in the rejected claims, since the claims (1, 2, and 7) only require "at least" word parts, which implies that word parts are present but does not rule out whole words. Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

, since "at least" implies that word parts are present, but does not rule out whole words

### ***Claim Objections***

8. Claim 2 is objected to because of the following informalities: The examiner assumes applicant intended "individual word parts" in line 5 to recite "at least individual word parts", since the remarks on page 6 note this limitation as being recited by claim 1 and comment, "Independent claims 2 and 7 recites similar limitations". Appropriate correction is required.

9. Claim 8 is objected to because of the following informalities: "a text element replacements" in line 2 is improper grammar. For the purposes of examination, the phrase will be interpreted as "text element replacements". Appropriate correction is required.

***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-8, 13, and 14 are rejected under 35 U.S.C. 102(b) as being anticipated by Mishelevich et al. (WO 01/31634).

Consider claim 1, Mishelevich discloses a speech recognition and correction system (**p1, lines 6-8**) which comprises

at least one speech recognition device (**p6, lines 14-20, Fig 4 Processor includes SR Engine and SR Interface**) to which a spoken text can be fed, it being possible for said spoken text to be transcribed into a recognized text, and

a correction device (**p15 lines 12-31, Fig 10 proofreading device**) for correcting the text recognized by the at least one speech recognition device,

said correction device being connected to the at least one speech recognition device via a data network (**p13 lines 4-8** the Internet) for the transmission of the recognized text and/or of the spoken text,

wherein the correction device has a lexicon of alternatives (**p15 lines 21-22**, list box 1012) which contains at least word parts (**p15 lines 25-28** "at least" implies word parts but does not rule out whole words) that can be displayed (**p15 lines 25-26**, words are shown on the interface) by the correction device as alternatives to at least individual word parts (**Fig 10**, Since "damage" is offered as an alternative to "damning", and both words are made up of "at least word parts", the "at least word parts" of "damage" are being offered as alternatives to the "at least individual word parts" of "damning". For example, "age" is an alternative to "ning") of the recognized text.

Regarding claim 2, it recites the correction device of claim 1, and is rejected for the same reasons as claim 1.

Consider claim 7, Mischelevich discloses a method of creating a lexicon of alternatives (**Fig 11, p16 lines 1-9**) for determining data record entries for a list of alternatives for the correction of recognized text which has been transcribed from spoken text by a speech recognition device,

wherein sources of knowledge (**p 16 lines 2-9**, Data is input, categorized voice recognition segments) that are independent of the speech recognition device, including text files specific to the field of application (**p 16 lines 2-9** data is put into specific

categories including patient history, cardiovascular, etc. The usage of text files is implied since storage of soundex codes requires a text file) are examined with respect to text elements, (p16 lines 2-9, data is categorized according to text elements) including at least word parts that can be confused with one another (p16 lines 1-2, "at least" implies word parts but does not rule out whole words, phonetically similar items can be confused with one another), and such text elements that can be confused with one another are put together as alternatives in a data record entry of the list of alternatives (p16 lines 1-2, p15 lines 21-22, the confusable text elements are put together in a list (a data record entry) of alternatives).

Consider claim 3, Mischelevich discloses analysis means (Fig 4, Text Processor 424 is an analysis means since it processes text) for analyzing selected text passages of the recognized text by means of character chain comparison or syntactic analysis, and for determining alternatives to the selected text passages from the lexicon of alternatives.

Regarding claim 4, Mischelevich discloses that the analysis means can be activated by a user of the correction device (p14 lines 20-23, the system is operated by a proofreader).

With respect to claim 5, Mischelevich further discloses the analysis means determines selected text passages from a cursor position or a marking information of a

text processing program (p14, lines 4-6).

Consider claim 6, Mishelevich discloses the analysis means determines selected text passages from a time position of the spoken text and its association with the recognized text (p13 lines 20-24).

Regarding claim 8, Mishelevich discloses text element replacements (p15 lines 25-28) made in a corrected text with respect to the original recognized text transcribed by a speech recognition device are determined and recorded as alternatives (p16 lines 7-9, the categorized voice-recognition segments contain the text element replacements and are stored, or recorded as alternatives) in data record entries of the lexicon of alternatives (p15 lines 21-22 the list is a series of data record entries).

Consider claims 13 and 14, Mishelevich discloses the data record entries of the lexicon of alternatives are subdivided according to speech, and according to technical field (p16 lines 1-9, the words are categorized into categories representing spoken sections during a medical procedure, which are technical fields).

### ***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the



invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 9 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mishelevich et al. (WO 01/31634) in view of Ortega et al. (6,507,816).

Regarding claims 9 and 10, Mishelivich discloses the feedback of each text element replacement is returned (**p15 lines 7-8**) and the retraining of the speech recognition software is carried out. (**p15 lines 7-8**) Mishelevich also discloses the speech recognition software causes alternatives to words to be displayed (**p14 lines 11-13**), and recording entries in the lexicon of alternatives (**p16 lines 7-9**, the categorized voice-recognition segments contain the text element replacements and are stored, or recorded as alternatives) thus suggesting, but not specifically teaching, that frequent element replacements are recorded as alternatives.

Mishelevich does not specifically teach the frequency of each text element replacement is statistically evaluated and the recording as an alternative in a data record entry of the lexicon of alternatives is only carried out when a predetermined lower limit value of the frequency, expressed by the absolute number of replacements or the ratio of replacements with respect to the overall number of words examined or with respect to the overall occurrence of a given word, is exceeded, or a predetermined upper limit is not reached.

Ortega discloses the frequency of each text element replacement (**Col 4 lines 30-41**, the user selects a text string to replace an incorrect one, **Col 4 lines 44-47** the

number of times (frequency) the corrected word (or text element replacement) is used is counted) is statistically evaluated (**Col 5 lines 1-4**, calculating percentages are a statistical evaluation) and the use of a problem solving application to provide suggestions to the speaker (**Col 5 lines 20-22**) is only carried out when a predetermined lower limit value of the frequency, (**Col 5 lines 24-29**, the calculated accuracy ratio is equivalent to the inverse of the number of replacements ratio, therefore the acceptable minimum taught in line 24 is equivalent to a predetermined lower limit on replacements ratio exceeded) expressed by the absolute number of replacements or the ratio of replacements with respect to the overall number of words examined or with respect to the overall occurrence of a given word, is exceeded.

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the invention of Mishelevich by using the replacement frequency evaluations are taught by Ortega to determine when to add a word to the lexicon, in order to solve misrecognition problems as suggested by Ortega (**Col 2 lines 10-15**).

5. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Mishelevich et al. (WO 01/31634) in view of Nassif et al. (6,418,410)

Consider claim 11, Mishelevich discloses that the text element replacements (**p15 lines 25-28**) made in a corrected text with respect to the original recognized text transcribed by a speech recognition device are determined and recorded as alternatives (**p16 lines 7-9**. the categorized voice-recognition segments contain the text element

replacements and are stored, or recorded as alternatives) in data record entries of the lexicon of alternatives. **(p15 lines 21-22** the list is a series of data record entries)

Mishelevic does not specifically disclose an analysis of the acoustic similarity of text elements and that the recording as an alternative is conditional upon a predetermined measure of phonetic similarity.

Nassif discloses an analysis of the acoustic similarity of the text elements is carried out **(Col 7 lines 2-5,** the audio of the text elements is compared) and the updating the language model **(Col 6 lines 45-50)** is only carried out when a predetermined degree of phonetic similarity is found. **(Col 6 lines 51-58,** the method compares whether a predetermined statistical quality exists by comparing the phonetics.)

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the invention of Mishelevich such that an analysis of the acoustic similarity of the text elements is carried out and the recording as an alternative is only carried out when a predetermined degree of phonetic similarity is found, as taught by Nassif, in order to continually improve accuracy, as suggested by Nassif **(Col 1 lines 32-37)**.

6. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Mishelevich et al. (WO 01/31634) in view of Chen et al. (5,864,805).

Regarding claim 12, Mishelevich discloses that the text element replacements **(p15 lines 25-28)** made in a corrected text with respect to the original recognized text

transcribed by a speech recognition device are determined and recorded as alternatives **(p16 lines 7-9**, the categorized voice-recognition segments contain the text element replacements and are stored, or recorded as alternatives) in data record entries of the lexicon of alternatives **(p15 lines 21-22** the list is a series of data record entries).

Mishelevich does not specifically teach an analysis of the time positions of the text element replacements is carried out and used as a condition for the recording.

Chen discloses an analysis of the time positions of text elements **(Col 3 lines 11-20**, the start and end times of the word) and a candidate words list is derived when for the text element there is a corresponding text element similar in terms of time **(Col 3 lines 21-23, Col 3 lines 32-39)**. Chen also teaches replaced text elements are chosen from the list of alternative words **(Col 4 lines 40-46)**.

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the invention of Mishelevich by conducting a time position analysis and conducting the recording only when there is a corresponding text element similar in terms of time, as suggested by Chen, in order to fix word boundaries problems as mentioned by Chen **(Col 1, lines 44-46)**.

7. Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Mishelevich et al. (WO 01/31634) in view of Ortega et al. (6,332,122).

Regarding claim 15, Mishelevich discloses identifying the person recording the data and, in the physician example, this can be either the physician or another medical staff member such as a nurse **(p8 lines 29-30)**.

Although it is implied, Mishelivich does not specifically teach that data record entries of the lexicon of alternatives are subdivided according to author of the original spoken or corrected text.

Ortega discloses a system in which transcribed text is associated with a speaker using a speaker ID **(Abstract)**.

It would have been obvious to one of ordinary skill in the art at the time of the invention to subdivide the data record entries of the lexicon of alternatives taught by Mishelevich according to author of the original spoken or corrected text as taught by Ortega, in order to overcome difficulties in identifying multiple users, as suggested by Ortega **(Col 1 lines 19-26)**.

8. Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Mishelevich et al. (WO 01/31634) in view of Rozak (5,950,160).

Consider claim 16, Mishelevich discloses the feedback from the proofreader in the form of the selection of particular options of text are used for training the speech recognition software (which generates the list of alternatives), implying, but not specifically teaching that the list of alternatives is adapted online during the correction of recognized texts **(p15 lines 7-11)**.

Rozak specifically teaches the list of alternatives is adapted online during the correction of recognized texts (**Col 5 lines 54-65**, the vocabulary, which overlaps the list of alternatives, has words added during correction, which makes it online).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the invention of Mishelevich to adapt the list of alternatives during correction as taught by Rozak, in order to improve efficiency, as suggested by Rozak. (**Col 1 lines 20-22**).

### ***Conclusion***

9. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jesse Pullias whose telephone number is 571/270-5135. The examiner can normally be reached on M-F 9:00 AM - 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Hudspeth can be reached on 571/272-7843. The fax phone number for the organization where this application or proceeding is assigned is 571/270-6135.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/J.P/

/Talivaldis Ivars Smits/  
Primary Examiner, Art Unit 2626

8/29/2008